



actual size

# Oscillator · VCXO · 3.3 V

SMD Voltage Control Crystal Oscillator · 7.5 x 5.0 mm

- two pinout versions available
- reflow soldering temperature: 260 °C max.
- ceramic/metal package



## General Data

type	JV75 3.3 V
frequency range	1.0 ~ 125.0 MHz
frequency stability over all*	± 25ppm* / ± 50ppm see table 1
current consumption	see table 2
supply voltage V <sub>DC</sub>	3.3 V ± 10%
frequency pulling range min.	± 50ppm / ± 100ppm <sup>▲</sup> / ± 150ppm <sup>♢</sup>
pulling control voltage	1.65 V ± 1.65 V <sup>♢</sup>
pulling linearity max.	± 10%
temperature	operating: -10 °C ~ +70 °C / -40 °C ~ +85 °C storage: -40 °C ~ +85 °C
output	rise & fall time: see table 3 load max.: 15pF current max.: 4mA low level max.: 0.1 x V <sub>DC</sub> high level min.: 0.9 x V <sub>DC</sub>
standby function	yes
start-up time max.	10ms
symmetry at 0.5 x V <sub>DC</sub>	45% ~ 55% typ. (40% ~ 60% max.)

Table 1: Frequency Stability Code

stability code	B	C			
	± 50 ppm	± 25 ppm			
-10 °C ~ +70 °C	○	○			
-40 °C ~ +85 °C	○	○			
● standard ○ available					

\*includes stability at 25 °C, operating temp. range, supply voltage change, shock and vibration, aging 1st year.

Table 2: Current Consumption max.

Current at 15pF load:

1.0 ~ 29.9 MHz	15 mA
30.0 ~ 44.9 MHz	20 mA
45.0 ~ 51.9 MHz	25 mA
52.0 ~ 125.0 MHz	35 mA

Table 3: Rise & Fall Time max.

6.0 ns:	1.0 ~ 39.9 MHz
5.0 ns:	40.0 ~ 125.0 MHz

note:

- specific data on request
- rise time: 0.1 V<sub>DC</sub> ~ 0.9 V<sub>DC</sub>
- fall time: 0.9 V<sub>DC</sub> ~ 0.1 V<sub>DC</sub>

## Recommendation

To avoid phase noise or FM modulation in the output frequency spectrum, we recommend to feed the Vcontrol input pin by a low source impedance.

\*not available > 52.0 MHz ▲not available > 80.0 MHz ♢on request, if < 52.0 MHz

## Dimensions

<p>top view</p>	<p>side view</p>	<p>bottom view</p>	<p>pad layout</p>	<p><b>standard pin connection B</b></p> <p># 1: Vcontrol # 2: e/d # 3: ground # 4: output # 5: nc # 6: VDD</p>	<p><b>optional pin connection A</b></p> <p># 1: Vcontrol # 2: nc # 3: ground # 4: output # 5: e/d # 6: VDD</p>
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in mm

## Order Information

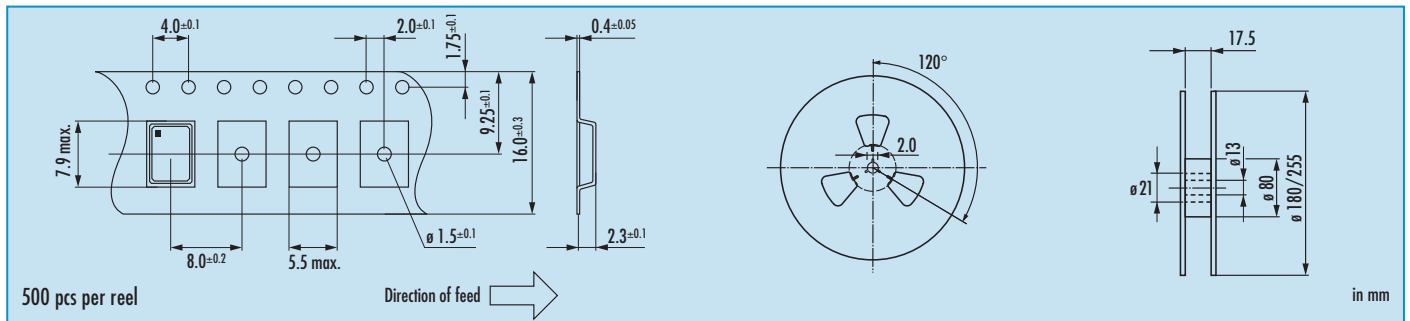
0	frequency in MHz	type	frequency stability in ppm	supply voltage in Volt	pulling range in ppm	pin version	option
Oscillator	1.0 ~ 125.0 MHz	JV75	C = ± 25 ppm* B = ± 50 ppm	3.3 = 3.3 V	05 = ±50 ppm 10 = ±100 ppm^ 15 = ±150 ppm^	B = standard A = optional	blank = -10 °C ~ +70 °C T1 = -40 °C ~ +85 °C
				*not available > 52.0 MHz		^not available > 80.0 MHz ^on request, if < 52.0 MHz	
Example: O 20.0-JV75-C-3.3-10-B (LF = RoHS compliant / Pb free pins or pads)							



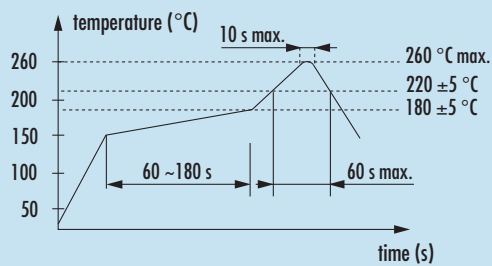
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All specifications are subject to change without notice

# Oscillator · VCXO · JV75 · 3.3 V

## Taping Specification



## Reflow Soldering Profile



note: parts are also suitable for soldering systems with lead (Pb) content

## Marking

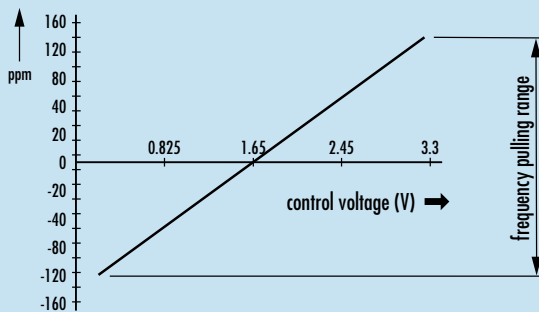
frequency  
type / date code

date code:  
A ~ M: Jan.- Dec.  
9: 2009  
0: 2010  
1: 2011

Jan.	Febr.	Mar.	Apr.	May	June
A	B	C	D	E	F
July	Aug.	Sept.	Oct.	Nov.	Dec.
G	H	J	K	L	M

## Control Voltage Characteristic

3.3 V version



## Packing Note

- standard packing units are 500 pieces per reel
- non-multiple packing units are only supplied taped / bulk

## Enable / Disable Function

pin #2/#5	pin #4
open or $\geq 0.7 V_{DC}$	enable
gnd or $\geq 0.3 V_{DC}$	high impedance

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